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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/664,934

09/22/2003

Naoyuki Yamamoto

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EXAMINER

BRASE, SANDRA L

ART UNIT

PAPER NUMBER

2852

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/664,934

Applicant(s)

YAMAMOTO, NAOYUKI

Examiner

Sandra L. Brase

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2, (3-6)/2, 7, (9-12)/8 and 16-18 is/are allowed.
- 6) ☒ Claim(s) 1, (3-6)/1, 7, (9-12)/7 and 13-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/14/03 & 2/2/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “33” has been used to designate both a temperature sensor and a fixation film. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference character(s) mentioned in the description: 11e and 11j. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted

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by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 61. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

5. The disclosure is objected to because of the following informalities.

The summary of invention includes a direct recitation of the claims and their dependencies, where this is not considered to be a brief summary of the invention since claims

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can be modified or canceled during prosecution. Therefore, applicant should replace the recitation of the claims and their dependencies with a brief summary of the invention.

On page 10, line 15, "black" should be changed to "block".

On page 11, line 26, "o" should be changed to "of".

On page 15, line 24, "8e" should be changed to "8c".

On page 17, line 2, "82" should be changed to "S2".

On page 21, line 14, "14a" should be changed to "13a".

On page 25, line 8, "oil" should be changed to "coil".

On page 29, line 10, "ate" should be changed to "gate".

Appropriate correction is required.

Claim Objections

6. Claims 13-18 are objected to because of the following informalities. Appropriate correction is required.

On lines 17-18 of claim 13, and on line 19 of claim 16, "said heat generating rate change" should be changed to "electric power change means".

On line 18 of claim 13, and on line 20 of claim 16, "the generating rate" should be changed to "the electric power".

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1, (3-6)/1, 7, (9-12)/7, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okabayashi (US 5,794,096) in view of Tanabe (JP 2-213888).

9. Okabayashi (...096) discloses an image forming apparatus, comprising: image forming means for forming an unfixed image on a recording material (col. 1, lines 12-16); and a fixing apparatus comprising: a heating member (1) for heating an unfixed image on a recording material; a magnetic flux generation means (3) for generating a magnetic flux by energization, an induction heating member for generating heat by the magnetic flux generated by the magnetic flux generating means to heat an unfixed image on a recording material by the generated heat (col. 6, lines 1-25; and col. 7, lines 15-21); temperature detection means (6) for detecting a temperature of the induction heating member; and temperature control means for controlling the temperature of the induction heating member to a predetermined target temperature on the basis of information of the temperature detection means (col. 7, lines 1-11). The magnetic flux generation means has an exciting coil (9), and a heat generating rate change means that changes a heat generating rate by changing a frequency of a high-frequency current to be applied to the exciting coil (col. 8, lines 57-65). The heat generating rate change means changes an electric power for energizing the magnetic flux generation means (abstract; and col. 2, line 64 – col. 3,

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line 10). The heat generating rate change means changes a current to be applied to the exciting coil of the magnetic flux generating means (abstract; and col. 3, lines 40-53). The heat generating rate change means changes a voltage to be applied to the exciting coil of the magnetic flux generating means (abstract; and col. 3, lines 40-53). However, Okabayashi (...096) does not disclose the claimed density detection means and the heat generating rate change means changes the heat generating rate on the basis of the information of the claimed density detection means. Tanabe (...888) discloses an image forming apparatus including a density detection means (39) for detecting information as to a density of an image to be formed on the recording material, wherein a heat generating rate change means changes a heat generating rate on the basis of the information of the density detection means (abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to have the claimed density detection means and the heat generating rate change means changing the heat generating rate on the basis of the information of the claimed density detection means, as disclosed by Tanabe (...888) so that a stably fixed picture is supplied even when the original has a high density, and the consumption of power is restrained when the original has a low density.

Allowable Subject Matter

10. Claims 2, (3-6)/2, 8, (9-12)/8 and 16-18 are allowed.

Prior Art

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hirao (US 5,428,434) disclose a control of a heater based upon density.

Yoshino et al. (US 5,768,655) disclose control of a fixing temperature in accordance with density.

Kinouchi et al. (US 6,438,335) and Kinouchi et al. (US 6,643,476) disclose a heating device including an exciting coil.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sandra L. Brase whose telephone number is 571-272-2131. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Arthur T. Grimley, can be reached on 571-272-2136. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Sandra L. Brase". The signature is fluid and cursive, with the first name "Sandra" and last name "Brase" clearly distinguishable.

Sandra L. Brase
Primary Examiner
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November 1, 2004